PULP & PAPER

New BSCP process and mill installation

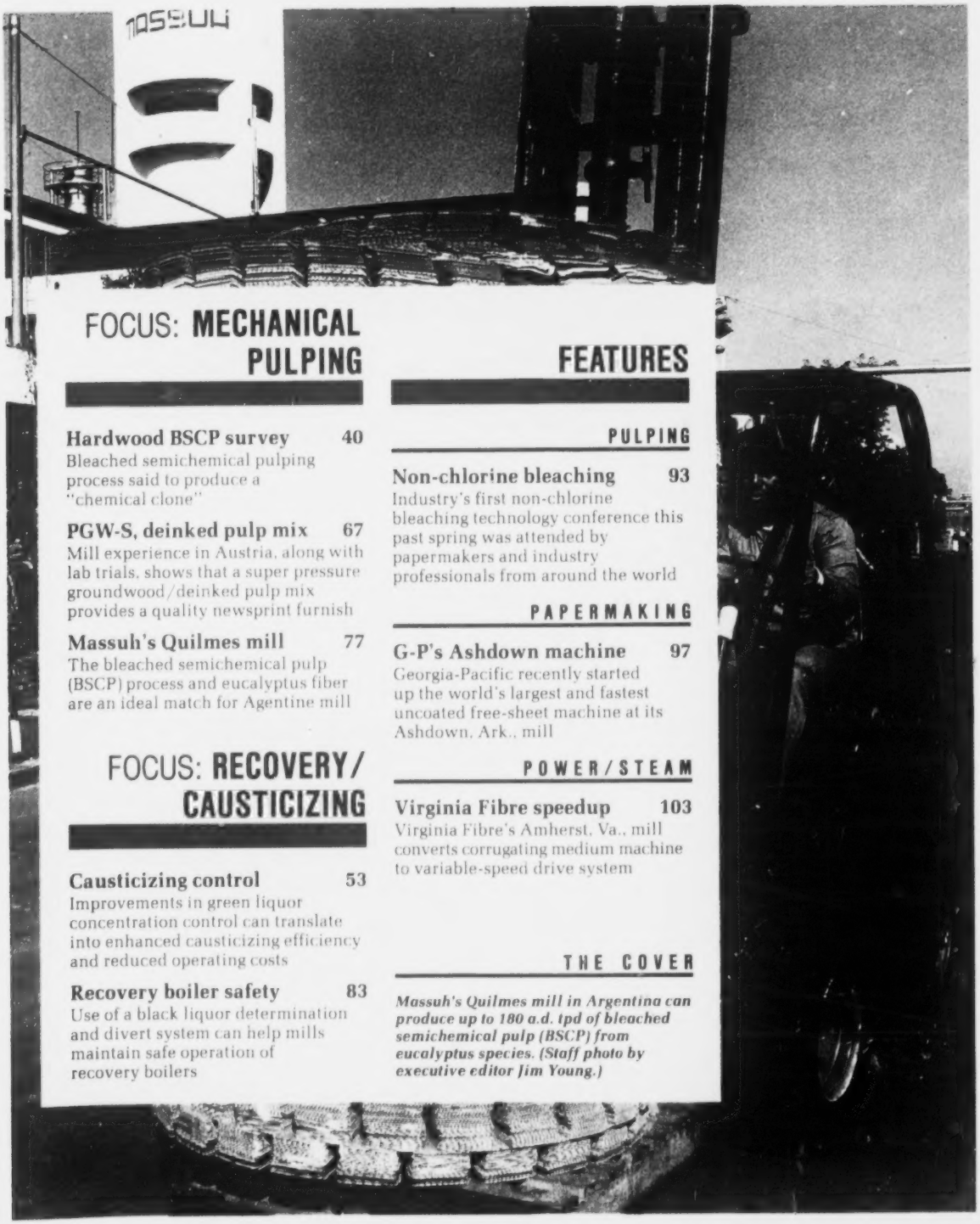
Green liquor concentration

Preventing explosions

G-P's latest TMP at Ashdown

Volume 66
Number 6

JUNE



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Massuh's Quilmes mill in Argentina can produce up to 180 a.d. tpd of bleached semichemical pulp (BSCP) from eucalyptus species. (Staff photo by executive editor Jim Young.)

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Atlanta: 2000 Powers Ferry Center, Suite 450 Marietta, Ga. 30067; (404) 952-1303; Fax (404) 933-0666
Chicago: 6160 N. Cicero Ave., Suite 122, Chicago, Ill. 60646; (312) 545-0700; Fax (312) 545-9994
San Francisco: 600 Harrison Street, San Francisco, Calif. 94107; (415) 905-2200; Telex 278273; Fax (415) 905-2240
New York: 370 Lexington Avenue, New York, N.Y. 10017; (212) 683-9294; Telex 220442; Fax (212) 725-0915
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ABP

BPA

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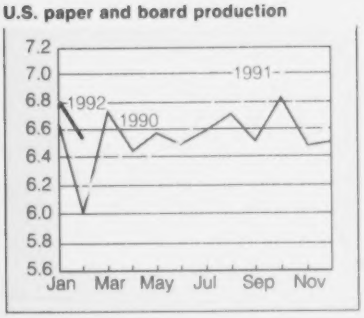
U.S. paper and board production



U.S. production of paper and paperboard totaled 6.5 million tons in January, up 6.5% from the same month last year, according to the American Paper Institute. The extra leap-year day accounted for 1.8% of the increase, however. The seasonally adjusted rate of paper production was up just 0.1% from a year ago, but paperboard posted an increase of 2.1%.

Among major grades, newsprint production continued to lead the way with a 6.4% gain over last February. Imports took the full brunt of the decine in domestic demand last year, API reports, while U.S. exports have soared, particularly to Latin American markets. Printing and writing papers were off slightly from last year but were down 3.4% from the full-year average for 1991. February was another strong month for containerboard, with production for domestic use up 4.8% on the strength of a 5.7% increase in fiber box shipments for the first two months of the year.

Canadian newsprint shipments totaled 660,000 metric tons in February, down 4.1% from February 1991. Woodpulp shipments climbed 13.2% to 780,000 tons. Operating rates stood at 84% for newsprint mills, down from 97% a year earlier, and 93% for pulp plants, down from 98% in February 1991. ■

	Latest month (000 short tons)		% change from year ago	Annualized year-to-date (000 short tons)	% change from year ago
PAPER & PAPERBOARD PRODUCTION[1]					
Newsprint	Feb.	561	7.5	7,009	6.4
Uncoated groundwood (s)	Feb.	116	-12.8	1,461	-15.3
Coated paper (s)	Feb.	597	5.9	7,167	-0.3
Uncoated free-sheet (s)	Feb.	954	12.0	11,533	4.6
Other printing/writing	Feb.	111	-6.7	1,402	-6.4
Total packaging and other paper (s)	Feb.	379	5.3	4,687	1.7
Tissue	Feb.	466	1.5	5,673	0.1
Total paper	**Feb.**	**3,183**	**5.8**	**38,933**	**1.8**
Unbleached kraft paperboard	Feb.	1,773	9.2	21,686	4.8
Semichemical medium	Feb.	478	5.5	5,900	3.4
Bleached paperboard	Feb.	351	-2.2	4,296	-4.6
Recycled paperboard	Feb.	750	8.7	9,295	6.3
Total paperboard	**Feb.**	**3,353**	**7.3**	**41,178**	**3.9**
Total U.S. paper and paperboard output	**Feb.**	**6,536**	**6.5**	**80,111**	**2.9**
PULP, WASTEPAPER & FIBER[2]					
Total U.S. woodpulp production	Feb.	5,254	4.4	65,614	3.0
Market pulp production	Feb.	820	8.3	9,997	10.2
Wastepaper consumption at paper/board mills	Feb.	1,912	14.6	23,639	8.6
Pulpwood consumption (cords)	Jan.	8,626	-2.0	103,512	-2.0
CONVERTED PRODUCTS STATISTICS[3]					
Corrugated box shipments (billion ft²)	Feb.	25.532	5.8	54.474[6]	5.7
Containerboard inventories at U.S. box plants and mills	Jan. 31	2,982	-3.6		
INTERNATIONAL TRADE[2]					
U.S. paper imports (including products)	Jan.	937	-15.3	11,241	-15.3
Imports of Canadian newsprint	Jan.	540	-22.1	6,485[6]	-22.1
U.S. paper exports (including products)	Jan.	745	15.3	8,939	15.2
Exports of unbleached kraft linerboard	Jan.	267	6.8	3,209	6.8
Exports of woodpulp	Feb.	527	8.7	6,555	13.7
Norscan pulp inventories[4]	Feb. 28	1,397	-12.4		
Norscan pulp operating rates[4]	Feb.	94%	97%	85%	96%
CANADIAN STATISTICS[5] *(reported in metric tons)*					
Total newsprint shipments	Feb.	660	-4.1	1,323[6]	-9.0
Operating rates	Feb.	84%	97%	82%	96%
Inventories held by U.S. consumers	Feb. 28	1,322	-7.6		
Other paper/board shipments	Feb.	610	7.2	1,228	4.0
Woodpulp shipments (export only)	Feb.	780	13.2	1,472	6.7
Operating rates	Feb.	93%	98%	91%	95%

1. American Paper Institute. 2. API, Bureau of Census, American Pulpwood Assn. 3. Fibre Box Assn., Paperboard Packaging Council. 4. North American/Scandinavian paper-grade market pulp. 5. Canadian Pulp & Paper Assn. 6. Not annualized. (s) = Shipments.

Recycled paperboard: Consumer demand for recycled packaging gives boost to mills

Grade structure: Recycled paperboard is made from recovered wastepaper and is generally produced on a cylinder paper machine. It is a multi-ply material which can be manufactured in various weights and calipers. The most important grades are folding boxboard, corrugating medium, linerboard, gypsum wallboard, core/can/tube stock, and chipboard.

Markets: Industry capacity is distributed as follows: folding boxboard, 27.0%; corrugating medium, 21.2%; gypsum wallboard, 12.8%; linerboard, 8.0%; setup boxboard, 3.1%; core/can/tube stock and other converting grades 27.9%.

Production/capacity: Recycled paperboard production increased by 2.4% to 9.173 million short tons in 1991. Production in early 1992 continued a strong upward trend, with first-quarter production 7% higher than a year ago. The strongest gains in the first quarter were in recycled linerboard, gypsum wallboard, and tube, can, and drum stock. Total production for the year is forecast to rise by approximately 3%, increasing to 9.466 million tons.

Capacity to produce all grades of recycled paperboard is projected to increase at an annual rate of 3.5% during the three-year period of 1992-1994, according to the American Paper Institute. Containerboard grades (linerboard and corrugating medium) will account for 95%, or 1.086 million tons, of the capacity additions.

The largest capacity additions will come from Stone Container Corp. and Inland Container Corp., who will add approximately 740,000 tons of recycled containerboard capacity this year. Stone is converting an existing kraft linerboard mill in Jacksonville, Fla., to produce about 530,000 tpy of 100% recycled containerboard, and Inland Container is building a new greenfield mill in Maysville, Ky., to produce 210,000 tpy.

Outlook: Production of recycled paperboard will be paced by continued steady demand for recycled folding cartons and the displacement of kraft linerboard and semichemical corrugating medium by the recycled containerboard grades. Manufacturers of corrugated boxes plan to use more recycled linerboard and corrugating medium to increase the amount of recycled fiber in their packaging. This trend has accelerated since the introduction of new box performance tests that permit mills to use more recycled fiber in their containerboard.

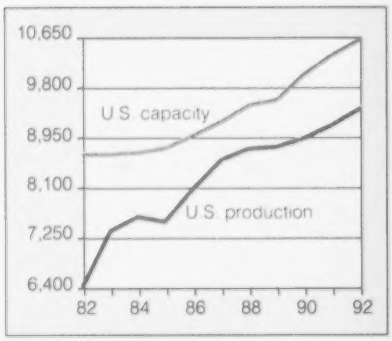
Consumer preference has played an important role in the increased use of recycled grades for folding cartons. The demand for recycled folding cartons should remain strong. In 1991, about 56% of folding cartons manufactured in the U.S. were made from recycled paperboard, up from 53% of the folding carton market in 1990.

Prices: Prices for most recycled paperboard grades strengthened during the first-half of 1992. Improving demand for construction and industrial packaging grades allowed mills to raise prices of uncoated grades about 6%, or $20/ton. Containerboard grades have benefited from firmer prices for virgin kraft linerboard. A price hike for clay-coated folding carton grades is expected during the second-half of the year. The current benchmark price for 20-point clay-coated news back (CCNB), which is widely used in folding cartons, is $535-$545/ton.

Historical prices for clay-coated 20-point folding carton boxboard are (rolls, $/short ton, year-end prices): 1980, $380; 1981, $400/425; 1982, $380/425; 1983, $370/425; 1984, $375/425; 1985, $350/400; 1986, $380/420; 1987, $390/415; 1988, $465/$475; 1989, $490/$500; 1990, $535-$545; 1991, $535/$545.

Bending 20-point chipboard prices are (rolls, $/short ton, year-end prices): 1980, $260/275; 1981, $270/280; 1982, $280; 1983, $280/300; 1984, $300; 1985, $300; 1986, $320; 1987, $320; 1988, $340/$360; 1989, $340/$360; 1990, $350/$365; 1991, $350/$365. ■

SUPPLY/DEMAND (000 tons)



FORECAST (000 short tons)

	1990	1991	1992e
Production[1]	8,956	9173	9466
Capacity[1]	10,040	10,365	10,640
Utilization rate	89.2%	88.5%	89.0%
Imports	100	95	110
Exports	39	52	60
Apparent U.S. consumption	9017	9216	9516
lb/capita	72.14	72.95	74.78
GNP ratio[2]	2.17	2.23	2.26

e = *Pulp & Paper* 1991 estimate.
1. American Paper Institute production, capacity data.
2. 1,000 tons/$ billion real GNP.

TOP U.S. PRODUCERS (000 tpy)

Company	Annual capacity (000 tons)	Market share (%)
1. Jefferson Smurfit Corp.	1,330	12.5
2. Newark Group Inc.	900	8.5
3. Sonoco Products Co.	900	8.5
4. Stone Container Corp.[1]	763	7.2
5. Inland Container Corp.[2]	620	5.8
6. Rock-Tenn Co.	607	5.7
7. Caraustar Industries Inc.	565	5.3
8. Waldorf Corp.	395	3.7
9. U.S. Gypsum Co.	390	3.7
10. National Gypsum Co.	240	2.3
11. Packaging Corp. of America	280	2.6
12. Green Bay Packaging	210	2.0
13. Simkins Industries Inc.	205	1.9
13. Federal Paper Board Co.	200	1.9
14. James River Corp.	180	1.7

Market share of top five companies: **42.5%**
Market share of top ten companies: **63.2%**

1. Converted Seminole Kraft linerboard mill to 100% recycled furnish in 1992. 2. Does not include Maysville, Ky., linerboard mill under construction.

SALES AND EARNINGS

U.S. paper industry has mixed first quarter

The U.S. forest products industry reported mixed first-quarter earnings with strength in wood products offset by continued weakness in most paper grades. A *Pulp & Paper Week* survey of 28 companies showed earnings of $513 million for the first quarter of 1992, excluding nonrecurring items, down 2.1% compared with year-ago results. Although heavy rains hampered production in the South, higher prices driven largely by tightening supplies caused by timber constraints led to dramatic improvements in the wood products sector, while a large number of paper producers continued to flounder.

Profits returned to Georgia-Pacific Corp.'s bottom line after a year's absence due to an all-time record quarter in its building products business, $183 million vs $6 million in first-quarter 1991. Operating profits at Weyerhaeuser Co.'s large wood products operations jumped nearly threefold to $111 million and were instrumental in spurring an 81% jump in net income. Louisiana Pacific Corp. and Pope & Talbot Inc. were other firms returning to profitability on the strength of improved wood products results.

Yet, as the economy continued to drag, companies geared to printing and writing papers or newsprint fared horribly in first-quarter 1992. According to Boise Cascade Corp., prices for uncoated business and printing papers were at their lowest level in the last decade. And despite $37 million in operating profits from its building products group, Boise Cascade again posted the largest deficit in the industry. At Bowater Inc., first-quarter sales rose 15% year to year, reflecting the inclusion of recently acquired Great Northern Paper Inc. But with prices for newsprint and groundwood publication businesses papers continuing to deteriorate, the company posted an $18.8-million loss before special items in first-quarter 1992. Even the more diversified International Paper Co., hurt by depressed prices for printing and writing papers, suffered a 19% year-to-year decline in earnings before nonrecurring items. Results were basically flat relative to fourth-quarter 1991.

In other grades, tissue markets remained under pressure, although Kimberly-Clark Corp. registered another impressive quarter as net income climbed 13.4% to $136.4 million, equivalent to about one quarter of the entire paper and forest products industry's total earnings. Scott Paper Co. also turned in surprisingly strong results.

The profits at the major paperboard/packaging firms were improved relative to fourth-quarter 1991 but were, in most cases, still behind year-ago earnings. Looking ahead, packagers plan to raise prices for most products in the coming months and are hopeful that better times are just around the corner. At Stone Container Corp., for instance, the exposure to newsprint overshadowed its packaging businesses, and the company posted a $9.8-million loss for the first three months of 1992, compared with a $1.3-million profit in the year-ago period. ■

U.S. paper/products industry results.

Companies	First-quarter 1992 ($000) Sales 1992	% change 1992/91	Earnings 1992	% change 1992/91
Boise Cascade Corp.	$953,930	−3.9%	($42,860)	NM
Bowater Inc.[1]	372,836	14.9	(18,836)	NM
Champion International Corp.[1]	1,200,277	3.0	(16,569)	NM
Chesapeake Corp.	210,135	5.9	2,516	2.7%
Consolidated Papers Inc.	217,274	−5.4	15,396	−40.0
Federal Paperboard Co. Inc.[1]	323,000	−3.3	16,800	−32.0
Fort Howard Corp.[1]	276,266	1.2	(17,392)	NM
Georgia-Pacific Corp.[1]	2,830,000	1.9	5,000	NM
P.H. Glatfelter Co.	138,653	−7.0	14,932	−27.2
International Paper Co.[1]	3,356,000	8.4	104,000	−18.8
James River Corp.[1]	1,136,353	−2.8	(1,705)	NM
Kimberly-Clark Corp.	1,739,700	4.3	136,400	13.4
Longview Fibre Co. (1/92)	152,696	0.2	3,904	167.8
Louisiana-Pacific Corp.	475,500	31.2	36,000	NM
Mead Corp.[1]	1,088,200	−0.8	17,700	32.1
Mosinee Paper Corp.	52,301	5.7	(479)	NM
Pentair Inc.	292,834	1.3	8,717	18.2
Pope & Talbot Inc.[1]	127,142	−3.7	103	−95.2
Potlatch Corp.	334,536	14.0	15,862	64.8
Scott Paper Co.[1]	1,200,100	1.8	36,344	24.0
Sonoco Products Co.[1]	429,793	5.4	22,753	23.9
Stone Container Corp.	1,354,300	1.3	(9,800)	NM
Temple Inland Inc.[1]	485,500	3.7	34,800	−17.3
Union Camp Corp.[1]	760,950	5.4	21,434	−48.0
Wausau Paper Mills Co. (2/92)	86,989	7.0	8,571	27.9
Westvaco Corp. (1/92)[1]	539,794	−5.9	27,104	−16.0
Weyerhaeuser Co.[1]	2,195,660	6.4	86,593	80.8
Willamette Industries Inc.	561,025	21.6	23,722	335.2
Totals	**$22,891,744**	**3.8%**	**$531,010**	**−2.1%**

1. Excludes major nonrecurring items.
( ) = losses. NM = not meaningful.

COATED PAPER

New pulp and paper mill in Alberta

Announced in early April, a new company, Grande Alberta Paper Ltd., has been formed with the intention of building a new pulp and paper mill near Grande Prairie, Alta. The project includes a lumber sawmill near Manning in northern Alberta, plus a greenfield chemi-thermomechanical pulp (CTMP) and lightweight coated (LWC) paper mill east of Grande Prairie on the Smoky River. The C$2.3-billion project is headed by a new partnership that includes former executives from Weyerhaeuser Co. and one of the principles of the engineering company NLK. Startup of the first of three paper machines is scheduled for late 1995, with expected capacity of 300,000 metric tpy.